



## Case study and analogue methodologies in climate change vulnerability research

---

**Author(s):** Ford JD, Keskitalo ECH, Smith T, Pearce T, Berrang-Ford L, Duerden F, Smit B  
**Year:** 2010  
**Journal:** Wiley Interdisciplinary Reviews. Climate Change. 1 (3): 374-392

---

### Abstract:

Assessing vulnerability is an important component of human dimensions of climate change (HDCC) research. Vulnerability assessments identify and characterize who and what are sensitive to climatic risks and why, characterize adaptive capacity and its determinants, and identify opportunities for adaptation. This paper examines the importance of case study and analogue methodologies in vulnerability research, reviews the historical evolution of the two methodologies in the HDCC field, and identifies ways in which they can be used to increase our understanding of vulnerability. Case studies involve in-depth place-based research that focuses on a particular exposure unit (e. g., community, industry, etc.) to characterize vulnerability and its determinants. Temporal analogues use past and present experiences and responses to climatic variability, change and extremes to provide insights for vulnerability to climate change; spatial analogues involve conducting research in one region and identifying parallels to how another region might be affected by climate change. Vulnerability research that uses case studies and analogues can help to develop an understanding of the determinants of vulnerability and how they interact, and identify opportunities to reduce vulnerability and enhance adaptive capacity to current and future climate risks. This information can assist policy makers in developing adaptation plans and to mainstream climate change adaptation into other policy-and decision-making processes. (C) 2010 John Wiley & Sons, Ltd. WIREs Clim Change 2010 1 374-392

**Source:** <http://dx.doi.org/10.1002/wcc.48>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Extreme Weather Event, Food/Water Security, Sea Level Rise, Temperature

**Extreme Weather Event:** Flooding, Hurricanes/Cyclones

**Food/Water Security:** Fisheries, Livestock Productivity

**Temperature:** Extreme Heat

#### Geographic Feature:

resource focuses on specific type of geography

# Climate Change and Human Health Literature Portal

Arctic

## **Geographic Location:**

resource focuses on specific location

Global or Unspecified

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Morbidity/Mortality

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Racial/Ethnic Subgroup

**Other Racial/Ethnic Subgroup:** Indigenous populations

## **Resource Type:**

format or standard characteristic of resource

Research Article, Review

## **Resilience:**

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

## **Timescale:**

time period studied

Time Scale Unspecified

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content